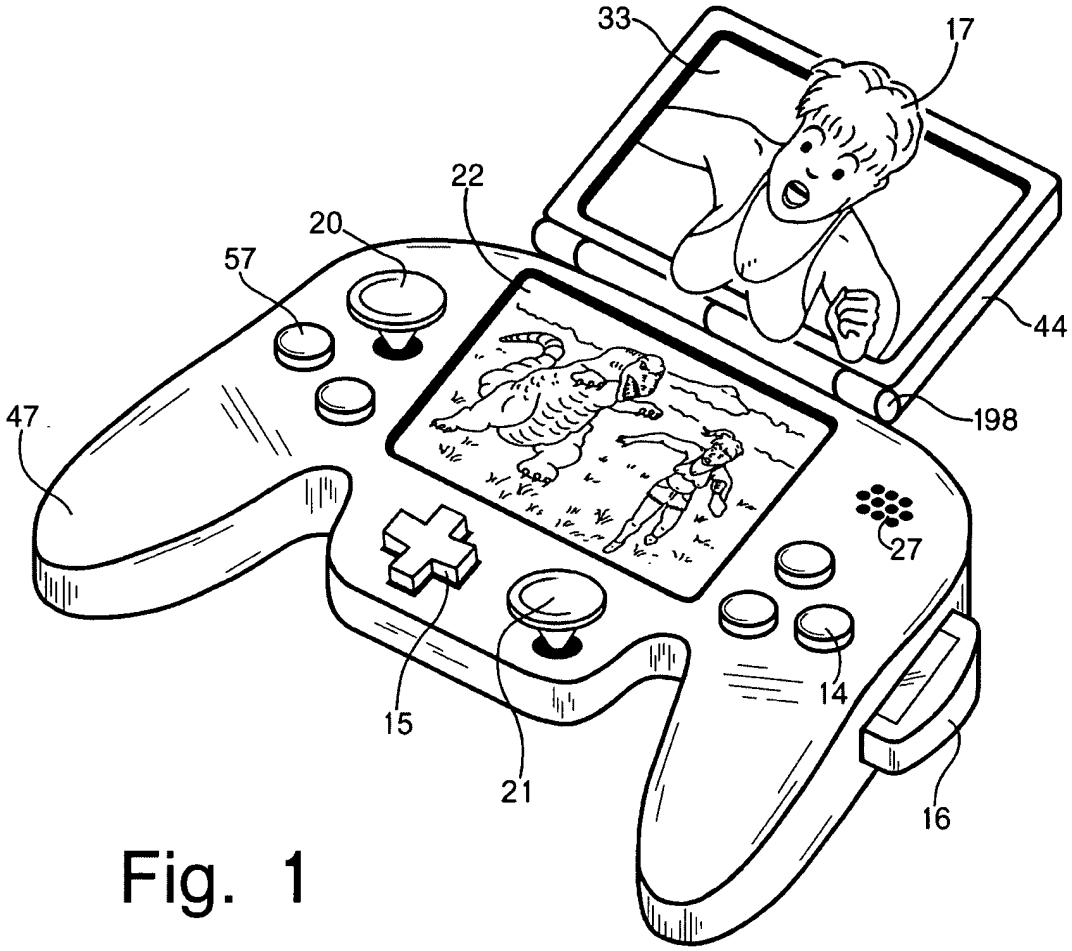
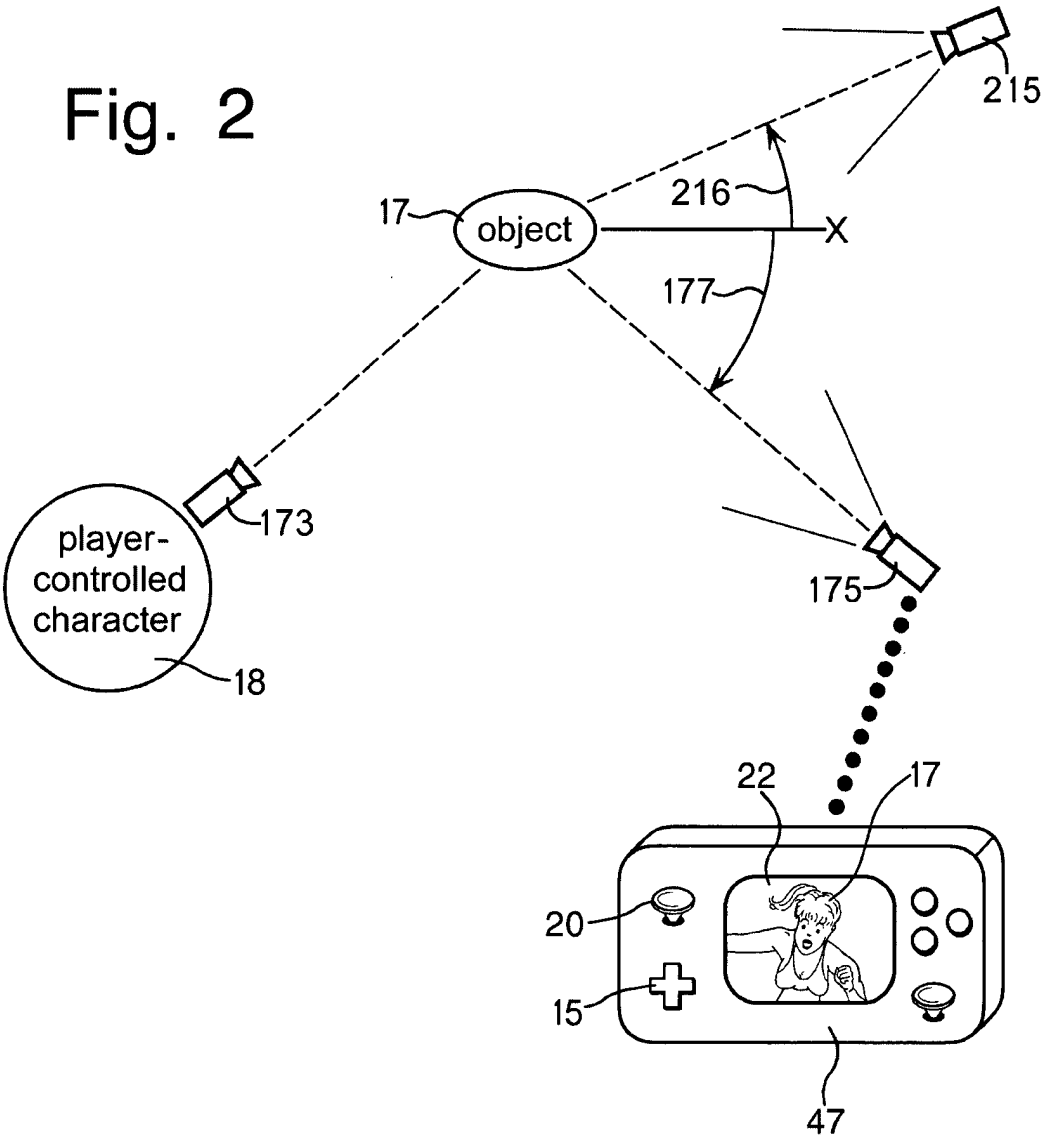


Fig. 1

Fig. 2


215
216
17
object
X
177
173
player-
controlled
character
18
175
22
17
20
15
47

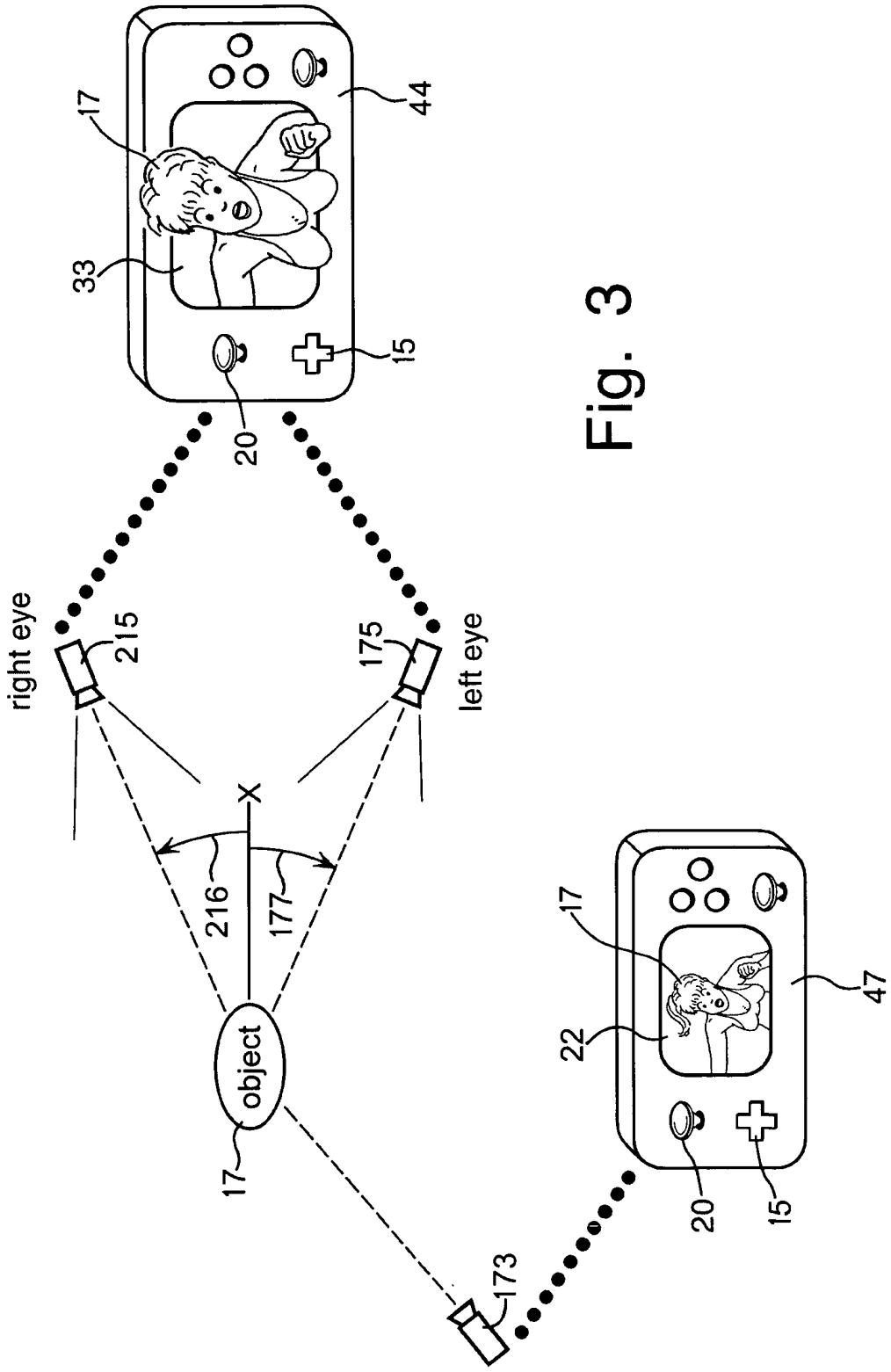
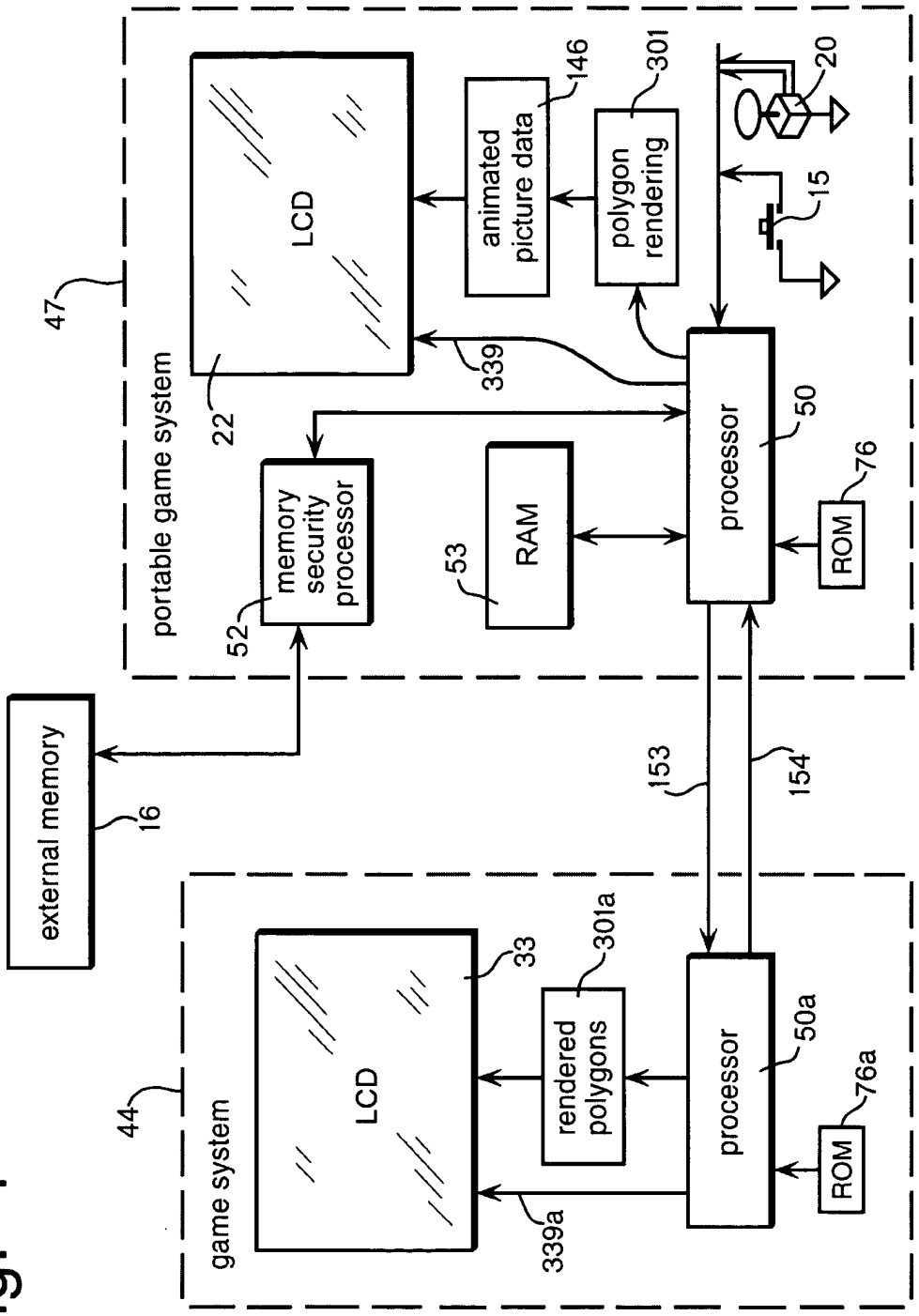

17
44
33
15
20
right eye
215
175
left eye
X
216
177
object
17
173
17
22
47
20
15

Fig. 3

Fig. 4


47
portable game system
LCD
22
339
animated picture data
146
polygon rendering
301
20
15
memory security processor
52
RAM
53
processor
50
ROM
76
external memory
16
153
154
44
game system
LCD
33
rendered polygons
301a
processor
50a
ROM
76a
339a

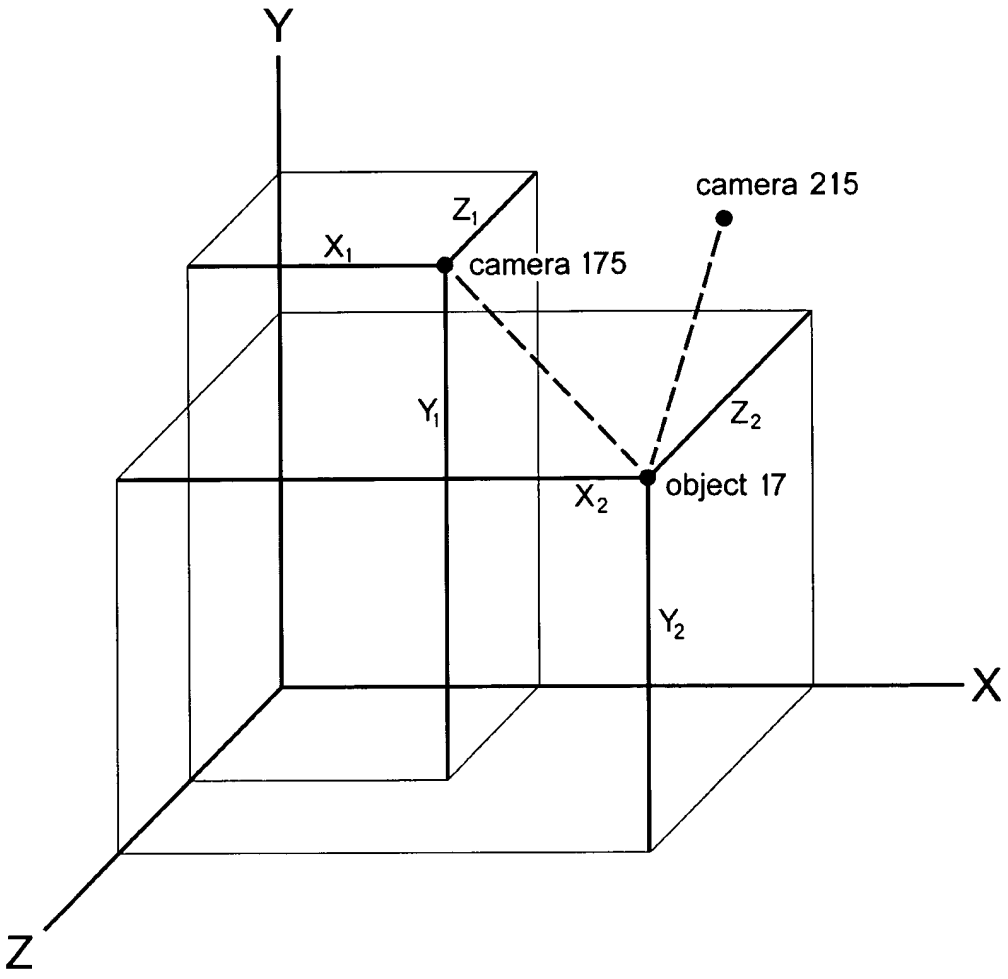


Fig. 5

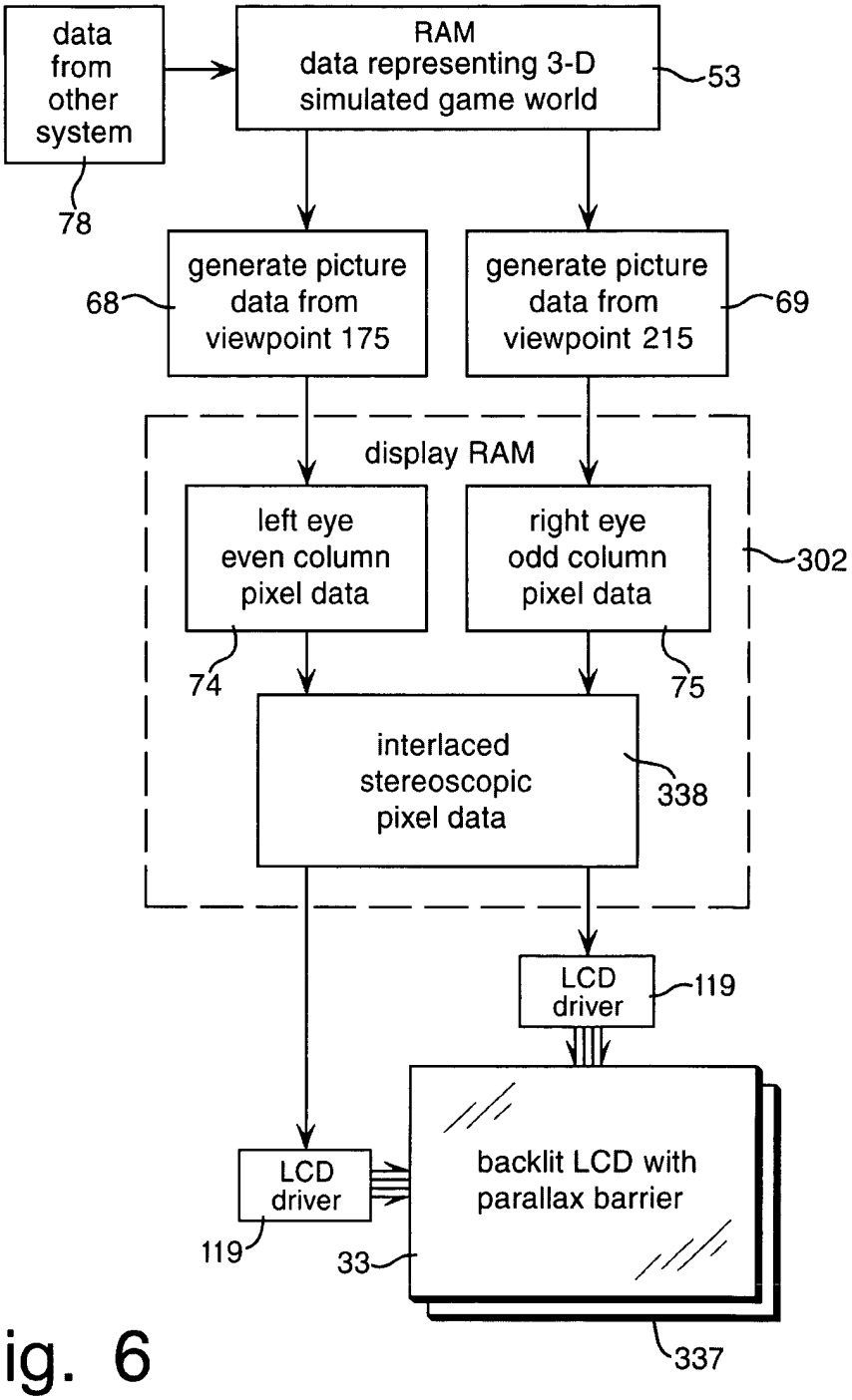

data from other system
78
RAM data representing 3-D simulated game world
53
generate picture data from viewpoint 175
68
generate picture data from viewpoint 215
69
display RAM
left eye even column pixel data
74
right eye odd column pixel data
75
302
interlaced stereoscopic pixel data
338
LCD driver
119
LCD driver
119
backlit LCD with parallax barrier
33
337

Fig. 6

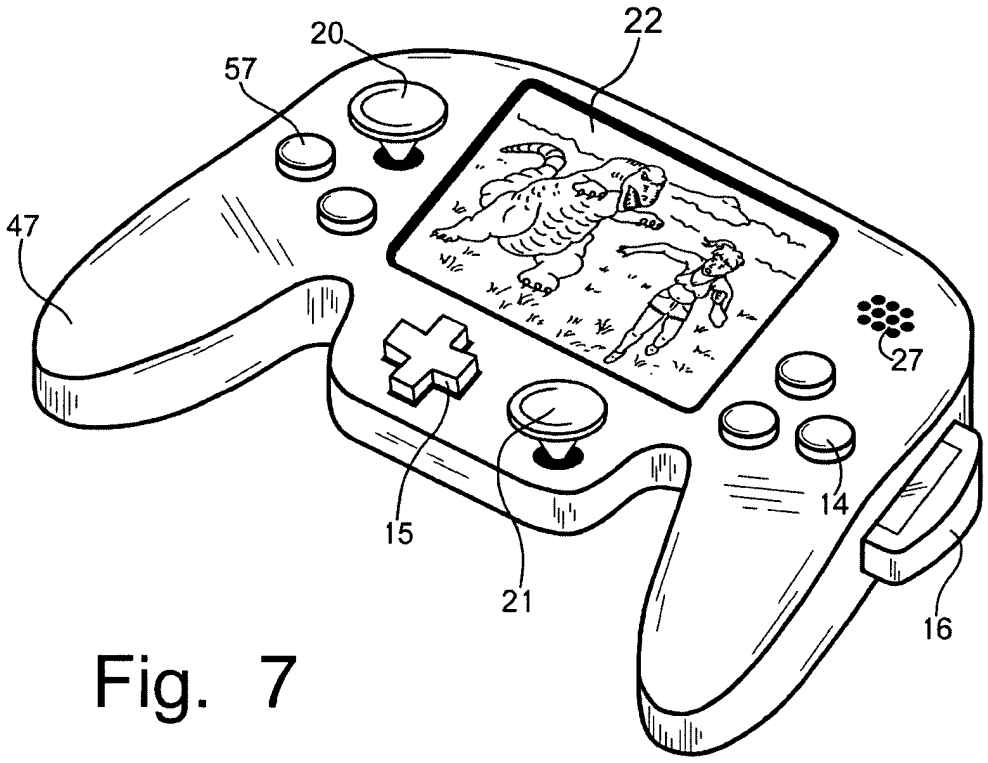


Fig. 7

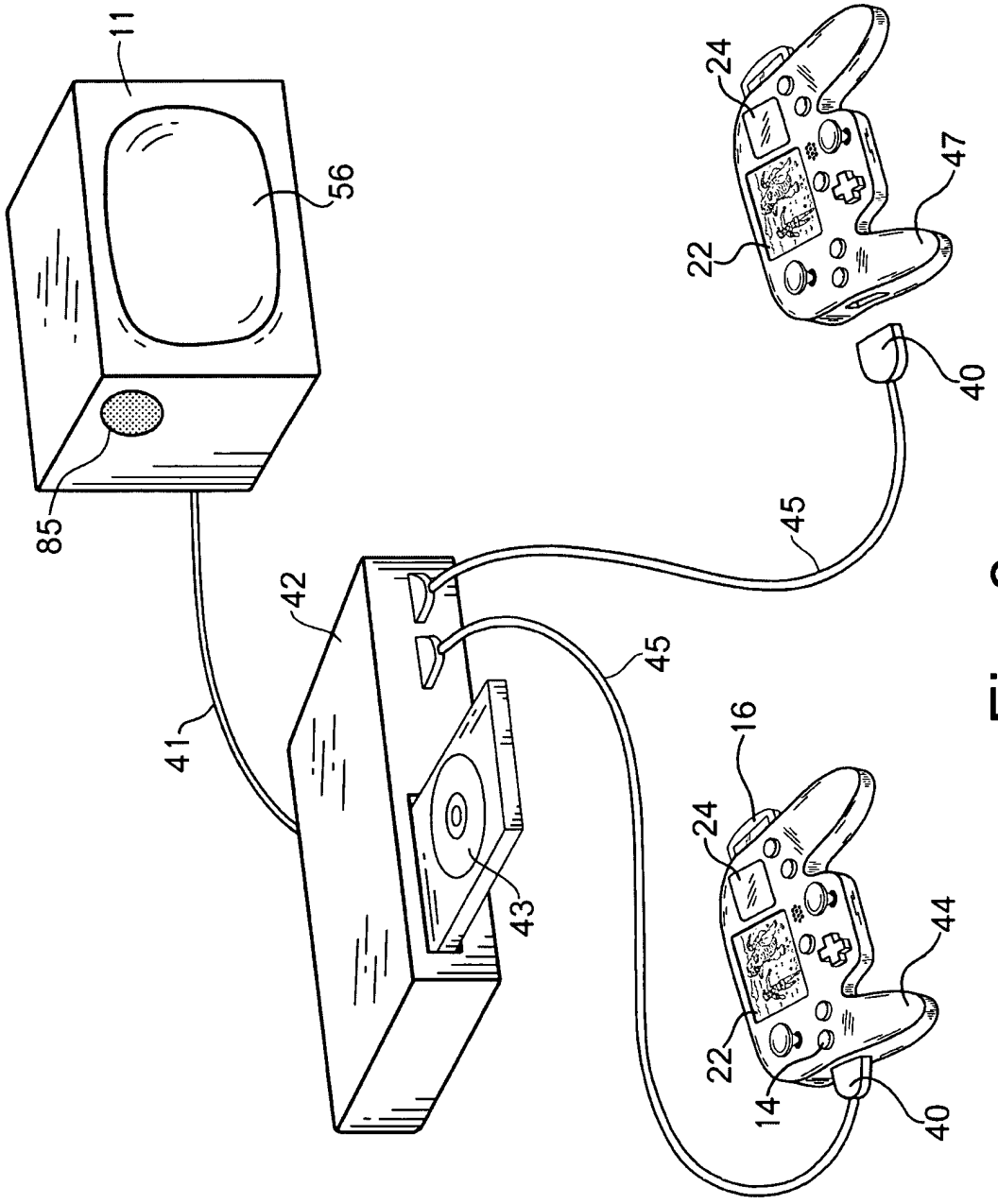


Fig. 8

Fig. 9

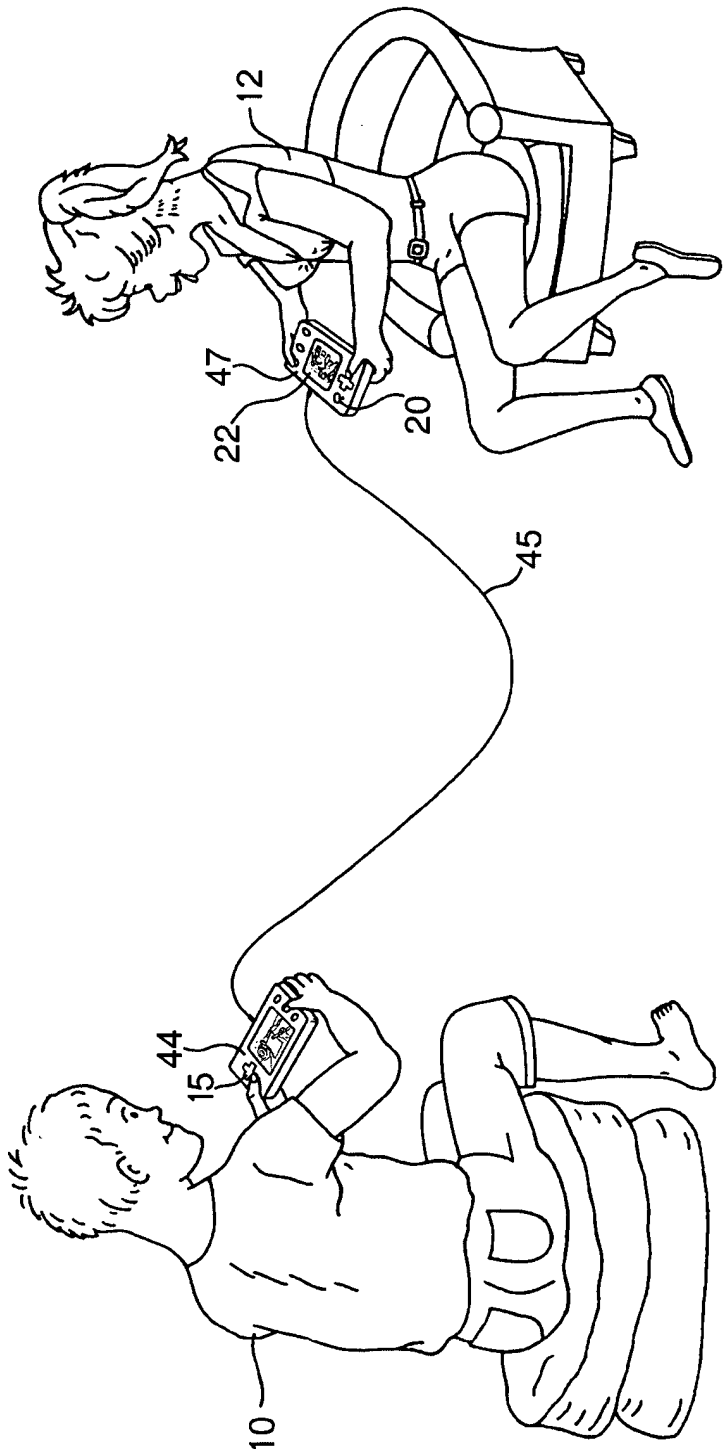


Fig. 10

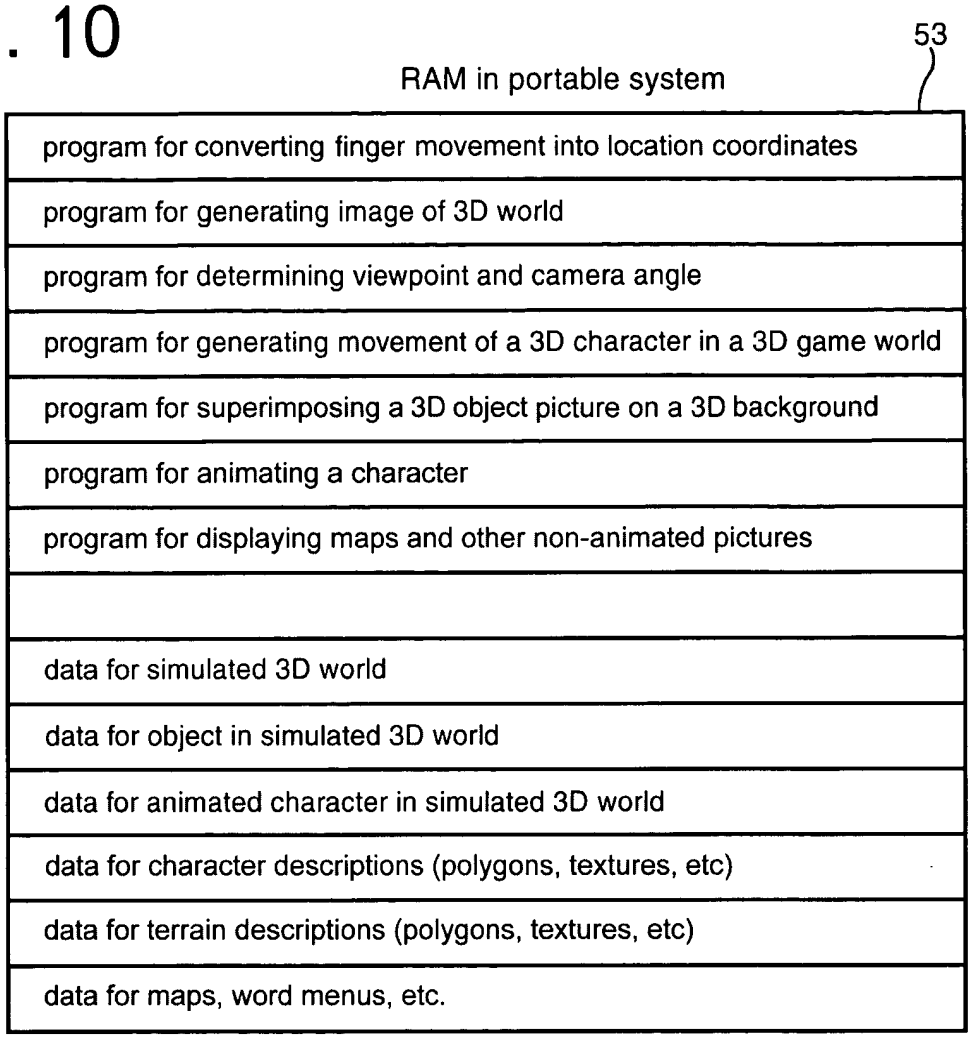
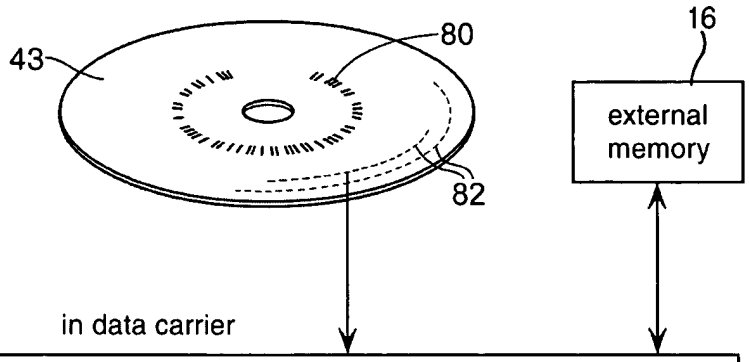
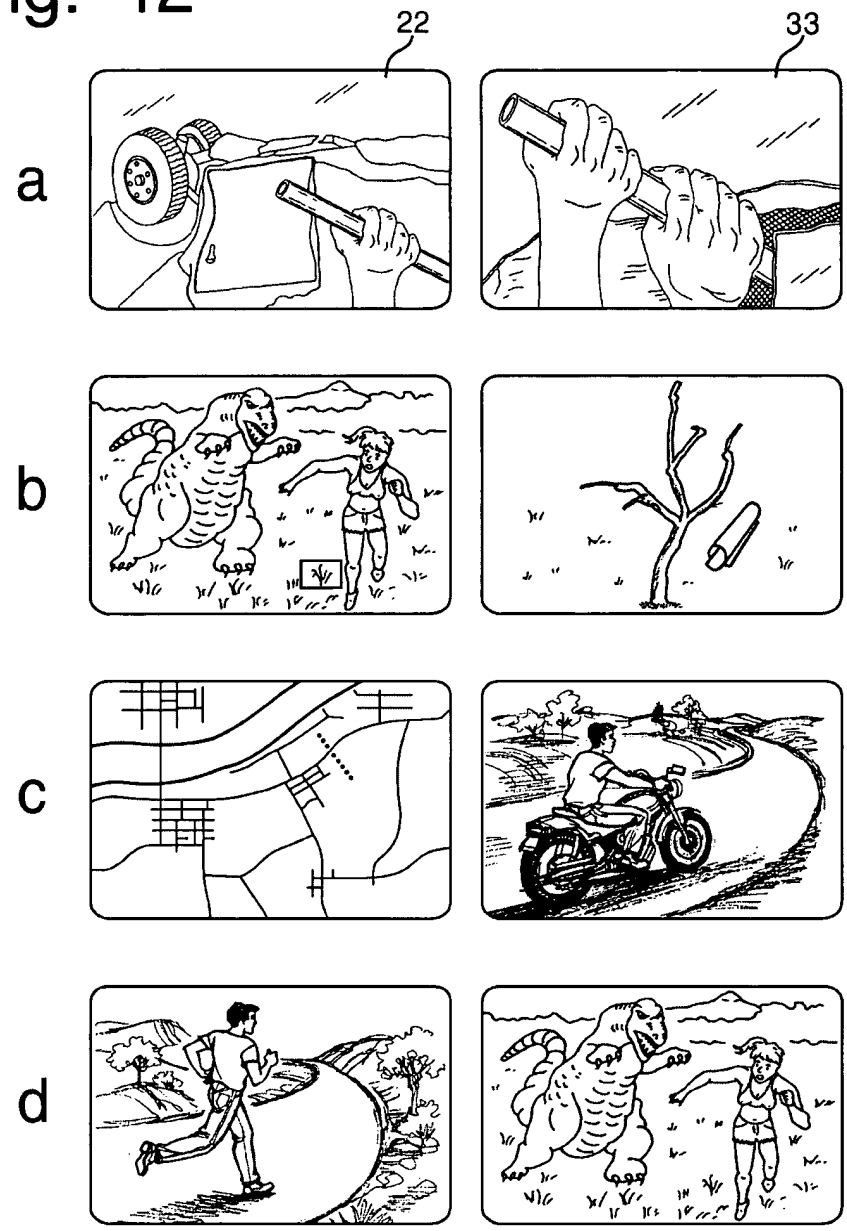

53
RAM in portable system
program for converting finger movement into location coordinates
program for generating image of 3D world
program for determining viewpoint and camera angle
program for generating movement of a 3D character in a 3D game world
program for superimposing a 3D object picture on a 3D background
program for animating a character
program for displaying maps and other non-animated pictures
data for simulated 3D world
data for object in simulated 3D world
data for animated character in simulated 3D world
data for character descriptions (polygons, textures, etc)
data for terrain descriptions (polygons, textures, etc)
data for maps, word menus, etc.

Fig. 11



program for generating data representing a simulated 3-D world
program for generating picture data of animated character in 3-D world
program for generating picture data of objects in 3-D world
program for calculating point of view locations and camera angles
programs to be transferred to a portable game system
program for sending data to portable game system to control LCD display
picture data for simulated 3D world
picture data for player-controlled object in simulated 3D game world
data for animated character performing action in 3D game world
data for location of character in 3D game world
data for character and object descriptions (polygons, textures, etc)
data for terrain descriptions (polygons, textures, etc)
data for maps, word menus, etc.

Fig. 12



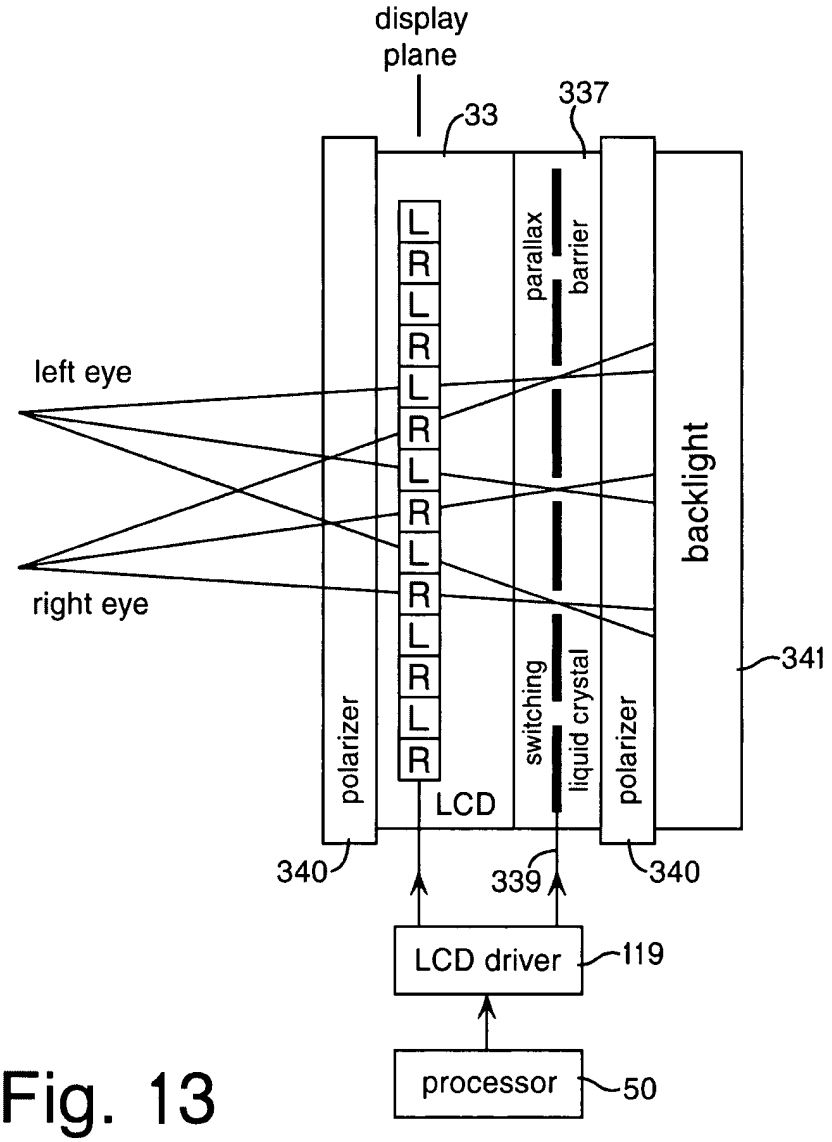

display
plane
33
337
parallax
barrier
left eye
right eye
L
R
backlight
341
polarizer
switching
liquid crystal
polarizer
LCD
340
339
340
LCD driver
119
processor
50

Fig. 13

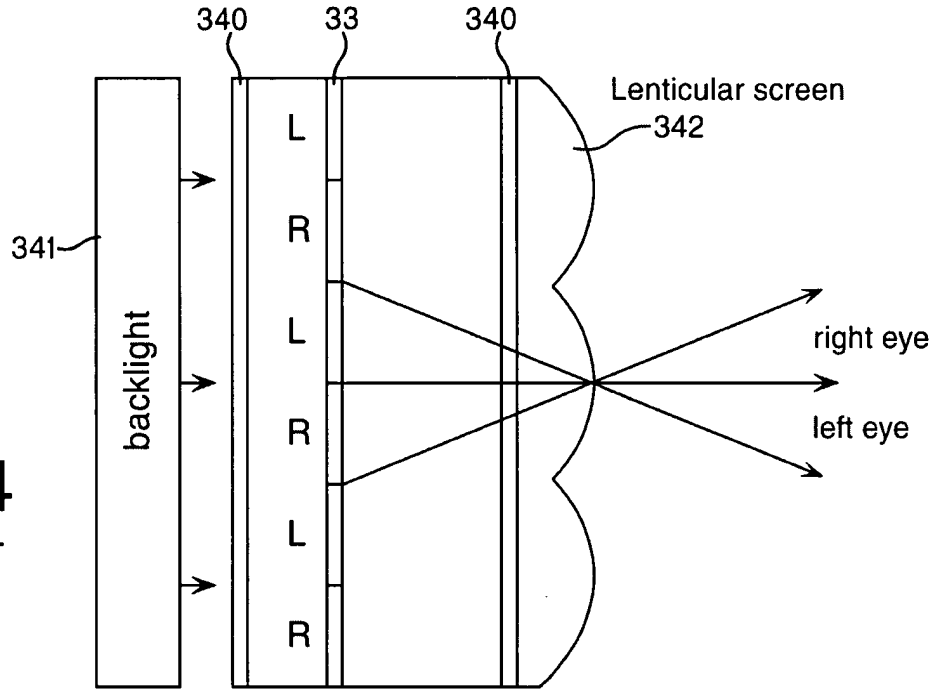


Fig. 14
PRIOR ART

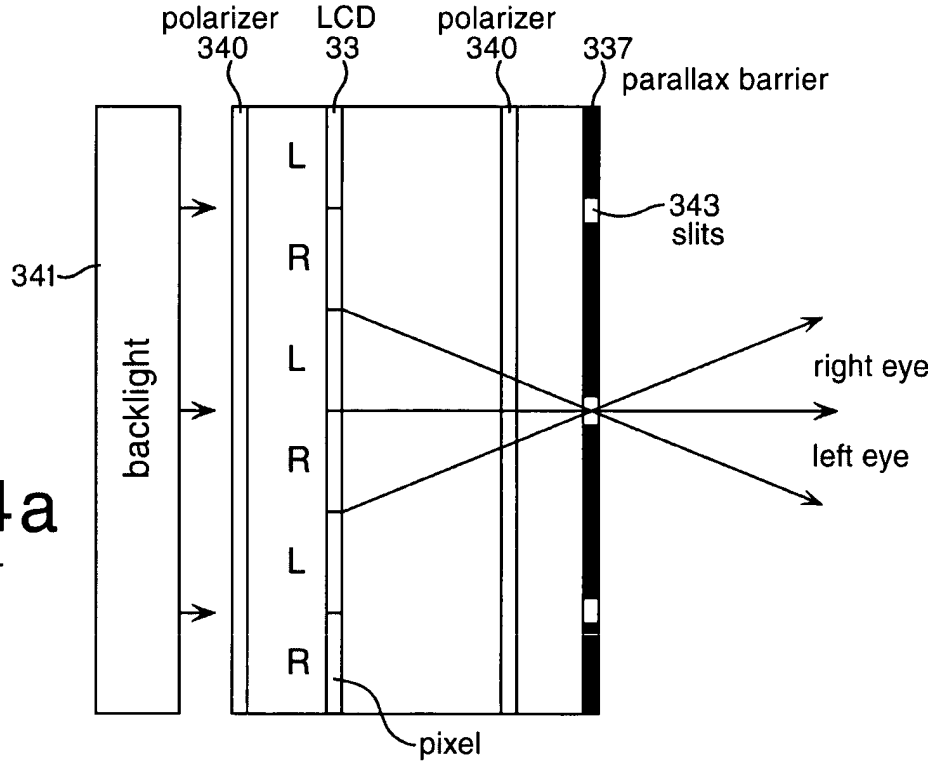


Fig. 14a
PRIOR ART